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# IS4813

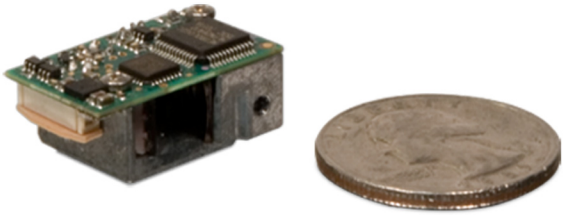
## Miniature Undecoded Laser Scan Engine

The IS4813 is a miniature, single-line, undecoded laser scan engine designed for integration into OEM devices. The engine is compact, lightweight and has low power requirements.

With one of the smallest footprints among similar products on the market, the IS4813 is ideal for integration into small mobile devices such as PDAs and data terminals. Since it has the widest sweeping angle among the competition, it can scan large bar codes closer to its face. For fixed mount applications, the laser line will be at the same position thanks to its tight tolerance of the exiting laser beam. The IS4813's metal housing makes it rugged and durable. There are also mounting holes incorporated directly into the housing which allow quick and easy integration into various OEM devices.

The IS4813's high scanning rate of 100 scans per second provides enhanced productivity. It delivers aggressive scan performance on all standard 1D bar codes, even those as dense as 4 mil. The IS4813 is the ideal miniature laser engine for a large variety of applications, including mobile computers, hand-held scanners, medical/diagnostic equipment, mobile printers, lottery terminals, ATMs and access control devices.

For more information on the IS4813 miniature undecoded laser scan engine, please visit www.honeywell.com/aidc



## Features

- **100 Scans Per Second:** Improves scan aggressiveness with increased scanning speed
- **Tight Beam Tolerance:** Exact beam position for fixed applications made easy because users scan in the same place every time
- **3.3 V or 5 V Models:** Allows flexibility to power with two alkaline batteries or standard power supply
- **Die-Cast Chassis With Threaded Mounting and Locating Holes:** Durable engine mounts easily without extensive bracketing
- **Compact:** Designed to fit easily into OEM devices

# IS4813 Technical Specifications

| | |
|---|---|
| **Operational** | |
| **Light Source** | Visible Laser Diode 650 nm |
| **Signal Output** | Digital, industrial standard |
| **Laser Power** | <0.74 mW |
| **Mechanical** | |
| **Dimensions (LxWxH)** | 24.7 mm x 14.6 mm x 11.9 mm (0.97" x 0.57" x 0.47") |
| **Weight** | 11 g (0.39 oz) |
| **Termination** | 10 pin ZIF connector |
| **Mounting** | 2 mounting holes, M1.6 mm threaded, 2 mm maximum depth |
| **Locators** | 2 locating holes, 0.8 mm diameter, 1 mm depth |
| **Electrical** | |
| **Input Voltage** | 3.3 ± 0.2 VDC (contact a Honeywell representative for availability of 5 V units) |
| **Operating Current** | 110 mA @ 3.3 VDC - typical; 120 mA @ 3.3 VDC - max |
| **Idle Current** | <30 mA @ 3.3 VDC |
| **Laser Class** | Class 2: IEC60825-1, EN60825-1 |
| **Environmental** | |
| **Operating Temperature** | -20°C to 50°C (-4°F to 122°F) |
| **Storage Temperature** | -40°C to 70°C (-40°F to 158°F) |
| **Humidity** | 5% to 95% relative humidity, non-condensing |
| **Shock Protection** | 200 G |
| **Light Levels** | Sunlight: 107,000 Lux (9,940 foot-candles); Ambient: 4842 Lux (450 foot-candles) |
| **Scan Performance** | |
| **Scan Pattern** | Single scan line |
| **Scan Speed** | 100 scan lines per second |
| **Sweep Angle** | 54° minimum |
| **Print Contrast** | 35% minimum reflectance difference |

Note: Approval and certification from agencies such as the FDA (Food and Drug Administration) must be obtained by the manufacturer of the end equipment. The specifications required for agency approval are not obtainable until the IS4813 engine is used in its final configuration. Therefore, it becomes the responsibility of the manufacturer who incorporates the scan engines into their product to comply with all federal laser safety regulations. The manufacturer must submit a Laser Product Report for the FDA in the U.S. or similar forms as required by other countries. Metrologic can assist its customers in complying with the necessary procedures.

| Typical Performance* | |
|---|---|
| Narrow Width | Depth of Field |
| 5.2 mil | 70 mm - 95 mm (2.8″ - 3.78″) |
| 7.5 mil | 57 mm - 171 mm (2.3″ - 6.8″) |
| 10.4 mil | 50 mm - 210 mm (2.0″ - 8.3″) |
| 13 mil | 50 mm - 254 mm (2.0″ - 10.0″) |
| 19.5 mil | 75 mm - 300 (3.0″ - 11.8″) |

*Resolution: 4 mil (0.102 mm)
*Performance may be impacted by bar code quality and environmental conditions

**For more information:**
www.honeywell.com/aidc

**Security & Data Collection**
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